Enrico Casella

PHD CANDIDATE · COMPUTER SCIENCE

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Education

University of Kentucky	*Lexington, KY, USA*
PHD COMPUTER SCIENCE	*Fall 2018 - Present*

- 4.0 GPA
- Advisor: Dr. Simone Silvestri
- Expected graduation: May 2023

University of Palermo	*Palermo, Italy*
MS COMPUTER ENGINEERING	*2015 - 2018*

- 110/110 cum laude
- Master's thesis at Missouri University of Science & Technology

University of Palermo	*Palermo, Italy*
BS COMPUTER AND TELECOMMUNICATION ENGINEERING	*2012 - 2015*

- Computer Engineering Specialization

Professional Experience

2019-Present	**Ph.D. Computer Science - Research Assistant**, University of Kentucky
2018-2019	**Ph.D Computer Science - Teaching Assistant**, University of Kentucky
2017-2017	**Visiting Research Scholar**, Missouri University of Science & Technology

Publications

PEER-REVIEWED JOURNAL ARTICLES

3. M. C. Cantor, **E. Casella**, S. Silvestri, D. L. Renaud, J. H. C. Costa, "Using Machine Learning and Behavioral Patterns Observed by Automated Feeders and Accelerometers for the Early Indication of Clinical Bovine Respiratory Disease Status in Preweaned Dairy Calves" in Frontiers in Animal Science, Vol. 3, 2022.

2. **E. Casella**, M. Ortolani, S. Silvestri, S. K. Das, "Hierarchical syntactic models for human activity recognition through mobility traces" in Springer Personal and Ubiquitous Computing, Vol. 24, Issue 4, pages 451-464, 2019.

1. **E. Casella**, A. R. Khamesi, S. Silvestri, "A framework for the recognition of horse gaits through wearable devices" in Elsevier Pervasive and Mobile Computing, Special Issue on Mobile and Social Sensing, Vol. 67, 2020.

CONFERENCE PROCEEDINGS

5. **E. Casella**, E. Sudduth, S. Silvestri, "Dissecting the Problem of Individual Home Power Consumption Prediction using Machine Learning" in Proceedings of the IEEE International Conference on Smart Computing (SMARTCOMP), 2022 - Work in Progress

4. **E. Casella**, M. C. Cantor, S. Silvestri, D. L. Renaud, J. H. C. Costa, "Cost-aware Inference of Bovine Respiratory Disease in Calves using Precision Livestock Technology" in Proceedings of the IEEE International Conference on Distributed Computing in Sensor Systems (DCOSS), 2022. *Acceptance rate: 30.95% (13/42 accepted papers)*

3. **E. Casella**, A. R. Khamesi, S. Silvestri, D. A. Baker, S. K. Das, "HVAC Power Conservation through Reverse Auctions and Machine Learning" in Proceedings of the IEEE International Conference on Pervasive Computing and Communications (PerCom), 2022. *Acceptance rate: 10.11% (18/178 accepted full papers)*

2. M. Cantor, **E. Casella**, S. Silvestri, D. Renaud, J. H. C. Costa, "Using machine learning and precision livestock farming technology for early indication of health status in preweaned dairy calves" in Proceedings of the European Conference

on Precision Livestock Farming (ECPLF), 2022.

1. **E. Casella**, A. R. Khamesi, S. Silvestri, "Smartwatch Application for Horse Gaits Activity Recognition" in Proceedings of the IEEE International Conference on Smart Computing (SMARTCOMP), 2019

IN PREPARATION

E. Casella, M.C. Cantor, S. Silvestri, J. H. C. Costa, "Using Precision Livestock Technology and Machine Learning for Cost-Aware Inference of Bovine Respiratory Disease Development and Recovery", submitted in IEEE Access.

E. Casella, S. Silvestri, D. A. Baker, S. K. Das, "A Human-Centered Power Conservation Framework based on Reverse Auctions and Machine Learning", submitted in IEEE Transactions on Smart Grids.

L. Monteiro, X. Tao, **E. Casella**, M.S. Cortasa, S. Silvestri, "Machine Learning Prediction of Soy Bean Yield Output based on Environmental Characteristics and Variety Types", to be submitted.

Awards, Fellowships, & Grants

2022	**Best Poster Award**, Computational Commonwealth Summit by University of Kentucky's Center for Computational Science (CCS)
2022	**Initiative Award**, Graduate Student Association of Computer Science at University of Kentucky
2022	**Thaddeus B. Curtz Memorial Scholarship**, University of Kentucky
2020	**Best Poster Award**, Computational Commonwealth Summit by University of Kentucky's Center for Computational Science (CCS)

Teaching Experience

Fall 2022	**CS 686**, Guest Lecture on Linear Programming	*University of Kentucky*
Spring 2019	**CS 371**, Guest Lecture on Machine Learning Principles	*University of Kentucky*
Spring 2019	**CS 371**, Teaching Assistant	*University of Kentucky*
Fall 2018	**CS 215**, Teaching Assistant	*University of Kentucky*

Mentoring

2022-Present	**Tao Xu**, Ph.D. Student	*University of Kentucky*
2022-Present	**Butcher Jackson**, Undergraduate Student	*University of Kentucky*
2021-2022	**Sudduth Eleanor**, Undergraduate Student	*University of Kentucky*
2021	**Hoang Duong H.**, Undergraduate Student	*University of Kentucky*

Outreach & Professional Development

TECHNICAL PROGRAM COMMITTEE MEMBER

ACM 24th International Conference On Distributed Computing And Networking (ICDCN 2023)
IARIA 10th International Conference on Advanced Communications and Computation (INFOCOMP 2020)

Journal Peer Review

IEEE Access
IEEE Internet of Things
IEEE Human-Machine Systems
Elsevier Pervasive and Mobile Computing
Elsevier Ad-hoc Networks
Elsevier Sustainable Energy, Grids and Networks
Springer Reliable Intelligent Environments

Conference Proceedings Peer Review

IEEE International Conference on Distributed Computing Systems (ICDCS)
IEEE Global Communications Conference (GLOBECOM)
IEEE International Conference on Distributed Computing in Smart Systems and the Internet of Things (DCOSS)
IEEE International Conference on Communications (ICC)
IEEE International Conference on COMmunication Systems NETworkS (COMSNETS)
IEEE International Conference on Smart Computing (SMARTCOMP)
IEEE International Conference on Wireless and Mobile Computing, Networking and Communications (LCN)
IEEE International Conference on Wireless and Mobile Computing, Networking and Communications (WiMob)
IEEE International Workshop on Smart Service Systems (SmartSys)
IEEE International Symposium on a World of Wireless, Mobile and Multimedia Networks (WoWMoM)
IEEE/ACM International Symposium on Quality of Service (IWQoS)

Professional Memberships

Institute of Electrical and Electronics Engineers (IEEE)

Outreach

Nov 2022	**2022 ICNP**, Student Volunteer	*Lexington, KY*
2022-2023	**Graduate Student Association of Computer Science (GSACS)**, President	*University of Kentucky*
2021-2022	**Graduate Student Congress**, Mental Health Committee Member	*University of Kentucky*
2021-2022	**Graduate Student Association of Computer Science (GSACS)**, Representative	*University of Kentucky*